Docket No.: 14069-00018-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Vera Haack et al.

Application No.: 10/500,807 | Confirmation No.: 8670

Filed: October 18, 2004 | Art Unit: 1623

For: USE OF POLYSACCHARIDE DERIVATIVES AS ANTI-INFECTIVE SUBSTANCES | Examiner: Michael C. Henry

DECLARATION OF

I, Prof. Dr. Thomas Heinze, HEREBY DECLARE:

1. I, Thomas Heinze, an inventor of the instant application Serial No. 10/500,807. I am currently employed as University Professor by the Friedrich Schiller University of Jena

2. I reside at D-07743 Jena, Kösener Straße 13; I am a citizen of Germany.

3. I am familiar with the subject matter and prosecution of application Serial No. 10/500,807, filed October 18, 2004, entitled "Use of Polysaccharide Derivatives as Anti-Infective Substances." The claims of the instant application are directed to methods of inhibiting the growth of pathogenic bacteria or the replication of herpes or influenza virus by administering certain alpha-glycosidically linked starch polysaccharide derivatives of general Formula I in an amount effective to inhibit the growth or the pathogenic bacteria, herpes virus or influenza virus.

4. Experiments on the antiviral effect of alpha-glycosidically linked starch polysaccharide derivatives of Formula I as defined in the application were carried out by Thomas Heinze according to the method disclosed in Example 6 "Determining the antiviral effect in regards to herpes simplex virus type 1" in the application at pages 13-14 with influenza A virus instead of herpes simplex virus type 1.

5. Results of the experiments are shown in Table 1 below. In Table 1, the Samples, Degree of substitution (DS_N), CC_{50}, IC_{50} and Selection Index each have the meaning used in the application in Example 6 at pages 13-14. The names of the Samples are the same as those shown in Table 3 at page 10 of the application. The starting compounds (QUAB reagents and unmodified starches) did not exhibit any antiviral effect (results not shown).

TABLE 1

		Antiviral activity against influenza A virus		
Sample	Degree of substitution DS_N	CC_{50} (μg/ml) In MDCK cells	IC_{50} (μg/ml) against Influenza A	Selection index (CC_{50}/IC_{50})
H 3 477	0.40	>200	37.0	>5.4
H 1 466	0.50	>200	<50%*	
H 2 005	0.66	>200	85.4	>2.3
WC 2 503	0.38	>200	28.9	>6.9
C 1 517	0.35	>200	65.8	>3.0
P 1 491	0.34	>200	91.7	>2.2
W 4 520	0.39	>200	81.0	>2.5
S 1 554	0.68	137.7	<50%*	

* inhibition of influenza A virus-induced CPE lower than 50%

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated: March 16, 2007

Signed: Thomas Heinze
Name

Typed or
Printed Name: Thomas Heinze